OZ ENVIRO

Australian Environmental Bulletin

U.S. Commercial Service, Australia

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Welcome to the Australian Environmental Bulletin

This publication contains business intelligence on the Australian environmental market.

Total environmental spending in Australia is around US$6 billion and is forecast to grow at a rate of four percent until 2006. In total, the industry is made up of about 2,500 mostly small firms, employing a total of 100,000 people. Imports currently satisfy 70 percent of the total demand for goods, and about 20 percent of the demand for services.

For further information on the articles in this publication or on any aspect of the Australian environmental market, please contact:

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Australian Market for Desalination Technology

The drought that began in 2002, and that has plagued much of Australia, has placed the spotlight on water quality and supply as Australia's number one environmental concern. Key major dams are operating at less than 50 percent of their capacity. Coupled with another growing environmental crisis – dry land and (to a lesser extent) surface water salinity, governments at all levels are grappling with the challenge of improving and ensuring Australia's future water supply.

Desalination has emerged as one of a variety of options gaining serious consideration by state governments. Australia accounts for less than one percent of worldwide desalination capacity and there is much debate about the merits of desalination versus other strategies. While the technology is likely to remain a very contentious subject, it is also clear that a long and severe drought will fuel increased interest in desalination.

A major desalination plant has already been committed to near Perth in Western Australia and will be built by Degremont S.A. (France) in consortia with a local engineering firm. The plant is scheduled for completion in April 2007. In the state of Queensland, the government has set aside $2 million to investigate desalination as an option. In the state of New South Wales, the government has moved ahead with environmental assessment, procurement and planning approval process to ensure that Sydney would be able to build a desalination plant. Two consortia have already been shortlisted for this project and tenders are expected to be submitted by August 2006. The experience of Western Australia and New South Wales may prove to be the major determinant in future considerations of large-scale desalination plants.

Australia accounts for less than one percent or 100 million liters per day (ML/day) of the worldwide capacity to desalt water. Currently, the largest desalination plant in Australia is a 35ML/day reverse osmosis (RO) plant at Bayswater, NSW which desalinates discharge water before supplying it to the plant for reuse. Quite a number of mines and power stations use RO desalination to comply with zero discharge commitments. For example, there are currently 27 desalination facilities in the state of Queensland, ranging in size from 22KL/day to over 16,000 KL/day. Australia-wide, there are about 10 small desalination plants used to produce potable water to the public. Again, these are all RO units.

There are approximately 500 large dams in Australia with a storage capacity of 84,793 gigaliters (GL). Tasmania (24,340 GL) and New South Wales (24,814 GL) have the largest storage capacity, while the Australian Capital Territory (124 GL) and South Australia (261 GL) have the least.

There are three channels by which water treatment technology reaches the end-user:

1. The utility or end-user appoints an environmental management or consultancy firm. This firm is often commissioned to first undertake an environmental audit or risk/impact assessment and then to make recommendations for the best technology to be used.

2. Alternatively, and depending on the size of the project, the end-user will allocate the contract to an environmental engineering firm or contractor capable of installing turn-key facilities. The engineering firm will then be responsible for sourcing the technology either directly from overseas or through local suppliers.

3. The government owned utility purchases wastewater equipment directly from the local manufacturer or joint venture partner/representative.

Private end-users usually maintain a preferred tenderers list in which certain suppliers, consultants and contractors will be invited to bid for the project. State government owned utilities are required to adopt a policy of open competition among suppliers and usually call for tenders through general media channels.

… more on Sydney's Desalination Project

In a media release dated December 22, 2005, Sydney Water announced that two consortia had been short-listed for a planned desalination plant in Sydney which would deliver at least 125 million liters of drinking water per day into the existing water supply. The members of each consortia are:

Freshwater Alliance: John Holland Tunnelling and Underground Mining, Leighton Contractors Pty Ltd, Veolia Water Australia Pty Ltd, United KG Pty Ltd, Sinclair Knight Merz Pty Ltd and Maunsell Australia Pty Ltd. Experience of the group includes design, construction, operation and maintenance of a 330 ML/day reverse osmosis desalination plant at Ashkelon, Israel.

PureSolutions: Thiess Pty Ltd, Parsons Brinckerhoff, GE Ionics Inc., GE Infrastructure and Black and Veatch Corporation V. Experience of the group includes design, construction, operation and maintenance of a 136 ML/day reverse osmosis desalination plant at Pt Lisas, Trinidad.

Tenders are expected to be finalized and submitted by August 2006.

More information on the desalination project can be found at www.sydneywater.com.au

Local Government Response to Climate protection

A recent survey commissioned by the Australian Greenhouse Office found that while some councils are well on their way to implementing greenhouse reduction programs and initiatives, most are currently focusing their investment internally on council buildings, and plan to continue to do so in the coming years.

Two thirds of councils have already implemented actions in an attempt to reduce greenhouse emissions from households in their local community and just over half have implemented actions for transport. Community programs have largely surrounded education and awareness though a range of other initiatives have also been employed by councils, such as incentives, demonstration projects, new or upgraded infrastructure and behaviour change initiatives.

Few officers feel they are currently prepared to deal with impacts from climate change despite feeling that they have a good or fair level of understanding about the issue. Two thirds of officers feel they will need to implement actions to avoid impacts from climate change in the next five years but very few feel prepared to do so; half feel somewhat prepared to do so and just under half feel they are not prepared to do so.

Officers cited a number of barriers to taking actions to reduce greenhouse emissions in their local community, namely the lack of resources.Almost all officers feel that grants would be beneficial to assist them to reduce greenhouse emissions. They also feel that offering incentives to householders and local businesses, and providing and improving transport infrastructure and services would be effective methods to encourage the local community to reduce greenhouse emissions.

More information can be obtained from:

http://www.greenhouse.gov.au/local/publications/lga-survey.html

General Market Entry Strategies

Success in the Australian market requires establishing a local sales presence. For American manufacturers of environmental technology this means appointing an agent or distributor or partnering with a local engineering firm. The bounds of that appointment are negotiated, and may include only certain states of Australia, the entire country, or New Zealand as well. An increasing number of businesses and investors see Australia as a secure platform from which to serve third markets in Asia.

For products or equipment that require local testing and certification, U.S. firms may find it more beneficial to establish a local presence which would allow them to retain any required registration under their own name. This strategy would negate the need to re-apply for registration if representation is changed.

The distance from many of their trading partners causes Australian firms to stress the importance of local support and service. American companies should visit Australia both to meet prospective partners and to demonstrate ongoing support, as this is the common practice of their competitors.

Most of the criteria American firms use to select agents or distributors can be transferred to Australia, with expectations adjusted to the scale of the market. Performing due diligence is just as important as in the United States, and numerous resources are available to assist in that work.

Reviewing Australia's Mandatory Renewable Energy Target

A 2005 report by the Australian Business Council for Sustainable Energy (BCSE) has concluded that the Australian Government's Mandatory Renewable Energy Target (MRET) scheme has been successful in developing new electricity generation projects.

The MRET scheme requires electricity retailers to source an extra two percent of their supply from renewable energy or specified waste energy sources by 2010. Under the scheme the annual target for renewable energy increases incrementally to 9,500 GWh by 2010. However according to BCSE, only a further 150MW of grid connected projects will be required to meet the 2010 target.

In context, as at December 2004 there were some 712 MW of renewable power projects that were under various stages of construction.

In a media release issued by the BCSE, Mr Ric Brazzale, the BCSE's Executive Director stated that, "MRET has been hugely successful in spurring investment in renewable energy projects.. The flipside to meeting the 2010 target in 2005 of course will be an inevitable downturn in future renewable energy investment in Australia and a possible `stranding' of industry capability, skills and IP.

"Renewable energy is a proven source of clean electricity and will play an essential role in reducing Australia's greenhouse gas emissions. However without future market mechanisms to encourage continued investment in renewables - or other low emission energy for that matter - reducing Australia's greenhouse emissions from stationary energy will be extraordinarily difficult."

Another key feature of the 2005 report is the analysis of the current and future production of renewable energy generation by fuel type over the life of the MRET scheme.

Market share based on Renewable Energy Certificates (REC) produced to 2004 by fuel source is: hydro (40%), solar water heaters (20%), wind (13%), bagasse (11%) landfill gas (8%), other bioenergy (8%).

By 2020 wind will be the largest contributor of RECs with 31% market share, followed by hydro (27%), solar water heaters (16%), bagasse (13%), landfill gas (6%), other bioenergy (5%), small generator units (PV and wind) (2%).

More information can be obtained from www.bcse.org.au

Enviro 2006

Date: May 9-11, 2006
Location: Melbourne, Victoria
Comments: Enviro is the only show of its kind in Australia dedicated to the general environmental industry. The show is being sponsored by two peak industry associations: the Australian Water Association and the Waste Management Association of Australia. The show which commenced in 2000 is held every two years and is expected to attract 6,000 visitors in 2006.

More information on the show is available from:
http://www.enviroaust.net/

Market for Biodegradable Plastics

Australians consume about 6.9 billion plastic bags annually with up to 80 million plastic bags finding their way into the litter stream. In 2003, the Australian Federal Government attempted to address the adverse environmental impact of plastic bags by challenging retailers to meet a range of targets relating to the reduction and recycling of retail carry bags. In response to this challenge the Australian Retailers' Association developed a Code of Practice for the Management of Plastic Bags.

Despite this voluntary code and the targets set, the market for biodegradable bags is currently very limited due to the fact that relevant Australian Standards for degradable plastics do not yet exist. These standards are being developed and will play an important role in addressing the concern that some products currently on the market do not meet their degradability claims. It is anticipated that the standards will be released in August 2006. Until the standards are made available, the Australian Retailers' Association (ARA) has advised retailers against the use of degradable bags.

A report undertaken by Nolan-ITU on behalf of the Federal Government identified the following emerging or potential applications for biodegradable plastics in Australia:

- Coated or laminated paper used within the retail food sector
- Agricultural mulch film that currently requires mechanical removal
- Shopping Bags
- Food waste film and bags
- Consumer Packaging Materials which are currently not recycled
- Landfill cover film which could serve to extend the life of the landfill
- Other applications such as bait bags, fishing line and nets, silage wrap, sanitary products, and cling wrap

With the introduction in 2006 of Australian standards for degradable plastics, and as buyers verify the claims made by both local and overseas producers (via overseas certification programs), the market for biodegradable plastics is likely to significantly grow.

Farm Irrigation Practices

Despite fewer farms irrigating in 2003-04 than the previous year, slightly more water was used over a larger area, according to a report released by the Australian Bureau of Statistics (ABS).

A total of 40,400 farms irrigated in 2003-04, down 8% from 2002-03. This figure represented under one-third (31%) of Australian farms, down from 33% in 2002-03.

Irrigating farms applied a total of 10,442 gigalitres (GL) of irrigation water to 2.4 million hectares (see media note). This represented 0.5% of agricultural land used for pasture and crops. This was a slight increases in both volume and area compared with 2002-03.

Pasture for grazing continued to use the most water in Australia in 2003-04, using 30% of the total volume of irrigation water on 33% of the total area irrigated nationally.

The most heavily irrigated crop was rice, with an average application rate of 12.4 megalitres per hectare (ML/ha), down from 14.1 ML/ha in 2002-03. This was almost three times the national average rate across all crops and pasture (4.3 ML/ha). Cotton had the next highest irrigation water use (6.7 ML/ha).

Western Australia reported the highest average application rate (5.7 ML/ha) and Tasmania the lowest (2.6 ML/ha).

The most common source of irrigation water nationally was surface water, such as rivers and dams, reported by 72% of irrigating establishments. The use of recycled or re-used water from off-farm sources increased by nearly 50% from 1,053 establishments in 2002-03 to 1,569 in 2003-04.

More information on water use by Australian farms can be obtained from www.abs.gov.au

Major Australian Waste Management Service providers

Cleanaway - a division of Brambles Industries Limited
Postal Address: GPO Box 4173 Sydney NSW 2001
Tel: 61-2-9256 5222
Fax: 61-2-9256 5299
Employees: 20,000 (includes all divisions of the Brambles Group)
Top 5000 Ranking by Employees: 52
Annual Revenue: $7,917,200,000 (includes all divisions of the Brambles Group)
Top 5000 Ranking by Revenue: 71
Website: www.cleanaway.com.au

Collex Pty Ltd
Formerly: Collex Waste Management Pty Limited
Postal Address: Level 4, Bay Centre 65 Pirrama Rd Pyrmont NSW 2009
Tel: 61-2-8571 0000 Fax: 61-2-8571 0180
Parent Company: Veolia Environment SA
Ultimate Parent: Vivendi Environment, SA
Employees: 2300 (G)
Top 5000 Ranking by Employees: 463
Annual Revenue: AU$465,442,000 (G)
Top 5000 Ranking by Revenue: 598
Website: www.collex.com.au

Sita Australia Pty Ltd- t/a Sita Environmental Solutions
Formerly: Pacific Waste Management Pty Ltd; PWM Australia Pty Limited
Postal Address: 64-84 Waterview Cl Dandenong South VIC 3175
Tel: 61-2-8227 4111 Fax: 61-2-9222 9206
Employees: 650
Top 5000 Ranking by Employees: 1247
Annual Revenue: AU$143,364,000
Top 5000 Ranking by Revenue: 1229
Website: www.sita.com.au

Thiess Services Pty Ltd- t/a Thiess Services
Formerly: Thiess Environmental Services Pty Ltd
Postal Address: Locked Bag 2009 South Brisbane QLD 4101
Tel: 61-7-3002 9000
Fax: 61-7-3002 9319
Parent Company: Thiess Pty Ltd
Employees: 3464 (G)
Top 5000 Ranking by Employees: 303
Annual Revenue: AU$1,313,636,000
Top 5000 Ranking by Revenue: 279
Website: www.thiess-services.com.au

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